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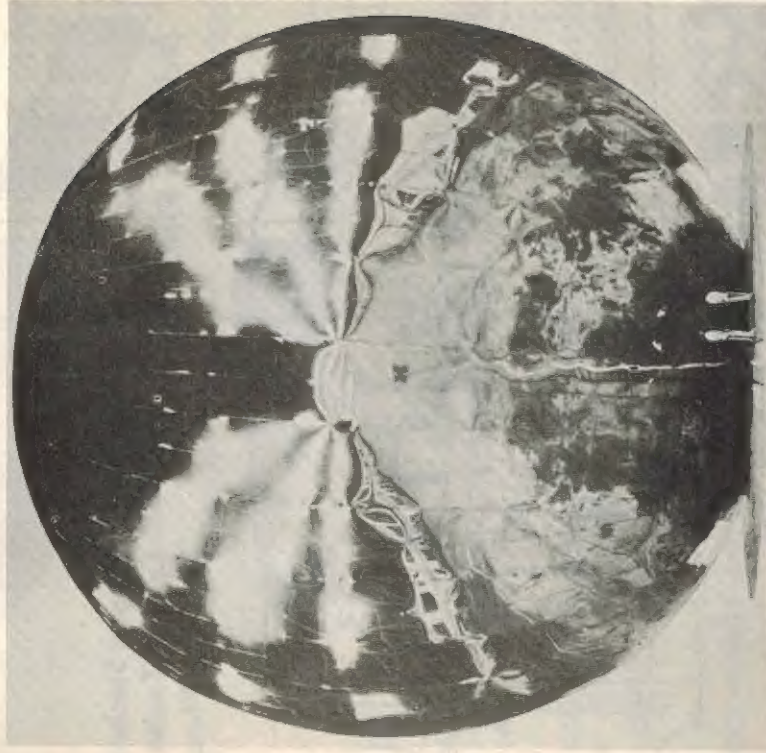
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MARCH - 1964

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2223 E. 74th Street
Indianapolis 20, Indiana

To: ROBERT CASKEY, W9DNQ
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If you will look at the program preview on the next page, I think you will agree that we have several top notch programs coming up. More equally fine ones are tentatively scheduled and will be announced later.

With programs of this caliber why not bring a guest to enjoy them with you?

Talk up the club over the air and at the local radio stores. Look around at work and invite someone who has an interest in radio, or try to get an ex-regular to come back.

Don't forget, visitors become members, and members we can use.

While I am on the subject, the treasurer will accept dues from members at any meeting. Don't overlook the opportunity to pay ARRL dues at the same time regardless of expiration date. Let's try for 100% League membership.

You bring guests, and we will do our best to entertain and interest them. Together maybe we can make members of them.

73, W9APJ

* * * * *

COVER STORY

On the cover of this issue is a photo of a ground inflation test of a reflective satellite such as Echo II which is now orbiting the Earth. This fascinating "heavenly body" is intended primarily for scientific experiments, but your attention is called to the fact that amateurs may also be able to bounce signals from the balloon satellite. The techniques involved are a little complicated to go into here, but if you refer to QST for April, June and October, 1962, you'll find some very interesting reading on this subject. Incidentally, you can plot your own Echo orbit times by tuning in the W1AW bulletin transmissions nightly and copying the latest data supplied by NASA.

PROGRAM REVIEW

By Jerry Lucas W9APJ

The program for the evening of January 10, 1964, was, of course, the installation of officers.

The master of ceremonies was our perennial bon vivant and raconteur, Alvey Pittman, W9JJC, who said so many nice things about the incoming officers that I for one almost didn't stand up. (I thought he was talking about someone else.)

Two fine films from Bell Labs, one on crystals and one on wave motion, were shown at the January 24 meeting.

Especially stressed, in the second film, was the fact that the properties of wave motion remain essentially the same, regardless of the medium in which the waves are propagated.

* * * * *

PROGRAM PREVIEW

Also by Jerry Lucas W9APJ
(This kid's a writin' fool)

Feb. 28 -- Earl Springer, W9HTB, ex-W9BWI, will present a program on "Pulse Techniques as Used in Air Traffic Control." Earl is a fine speaker, and has given the club many outstanding technical programs, as well as humorous extemporaneous talks in the past, as any but the newer members will recall. He is the owner of Springer Aircraft Radio Co. and has spent several years working on pulse modulation techniques, and is a pioneer in ham TV, a veteran pilot, and an inveterate experimenter in many fields of electronics.

Mar. 13 -- After the business meeting, Frank Owens, K9MWG, whom most of you remember for the talks on transformers, will speak on cavity generators, an entirely new concept in electrical to acoustic transducers (hi fi speakers to the uninitiated) developed by Murray Carson Co.

Mar. 27 -- Dick Judkins, Chief Electrical Engineer of Esterline Angus Instrument Co., will talk on "Transistorized Ignition Systems." Here is a chance to learn how to soup up the old buggy and become a hot rodder in one easy lesson.

(continued on next page)

OTHER COMING ATTRACTIONS

Apr. 24 -- "FM--What Is It?" by Walt Smith, WA9BHV
 May 8 -- Homebrew Night
 May 22 -- Auction (start saving gear)
 June 20-21 -- Field Day

* * * * *

LICENSE TOTALS

In case you missed them when they were published recently, here are the totals of the various classes of amateur licenses issued in Indiana and in the entire United States, as of the closing date for the 1963-64 winter edition of the Callbook:

	Indiana	%	United States	%
Novice	401	6.5	16,795	6.3
Technician	2,017	32.4	58,656	22.0
Conditional	509	8.2	40,259	15.0
General	2,222	36.0	95,250	35.8
Advanced	793	12.8	40,296	15.0
Extra	46	0.7	3,164	1.2
Club	97	1.6	2,976	1.1
Military	25	0.4	1,766	0.7
Second Station	68	1.1	2,873	1.1

TOTALS 6,178 266,202

* * * * *

SPLATTER

SSB has lost one of its most dedicated devotees. W9JJC has a new Pentax camera and has been hitting the darkroom as often as he used to puncture the Heaviside layer.

That item in the last Ama-Chewer about Marconi was taken from Popular Science of 1903, not 1963. Blast these scab printers, anyway.

PUZZLE

There were exactly zero entries received for last month's Ama-Chewer puzzle, which involved calculating a coil and condenser combination for the final stage of an amateur transmitter. (Ray, you musta made it too hard--all that mathematics and stuff--what is amateur radio coming to? Cheeee!!)

Anyhow, in case some Ama-Chewer readers figured out the puzzle and have been waiting to see the answers before revealing their work, here are the correct results:

80 meters	40 meters
C equals 274 mmfd.	C equals 137 mmfd.
L equals 7.5 microhenries	L equals 3.77 microhenries
N equals 20.6 turns	N equals 14.5 turns
20 meters	10 meters
C equals 69 mmfd.	C equals 34 mmfd.
L equals 1.88 microhenries	L equals .94 microhenries
N equals 10.4 turns	N equals 7.2 turns

Now then, let's have a go at another one. With a circuit wired like this:



Find the effective resistance between A & B.

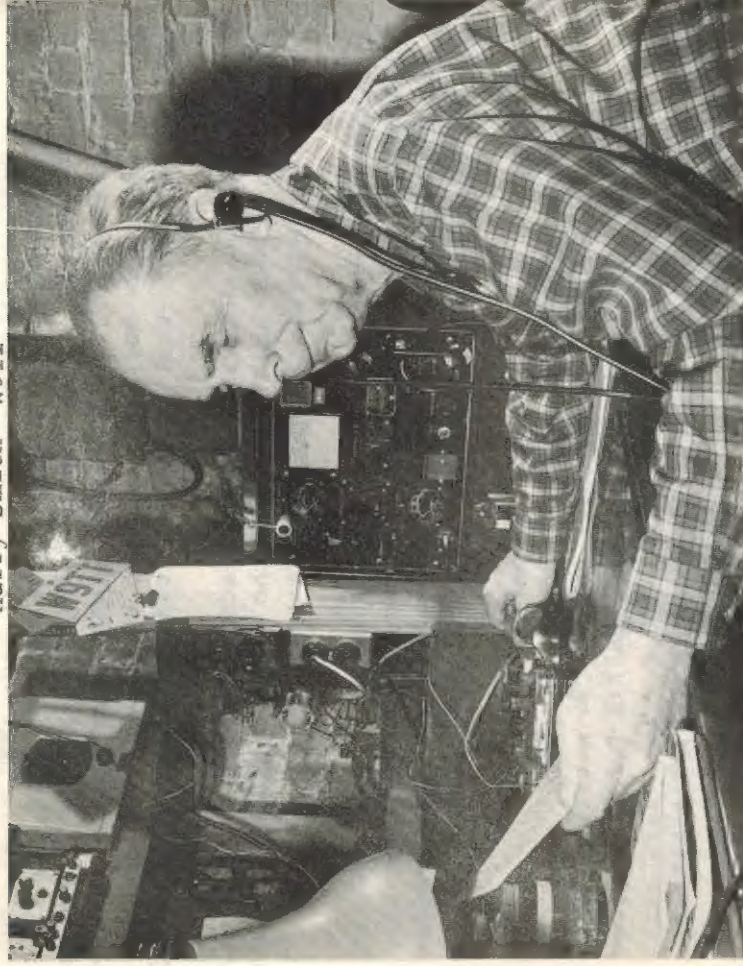
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 Gene - W9KJF Chuck - K9UDW Walt - K9SGQ



If you want to learn what this amateur radio stuff is all about, come along for a visit to 335 N. Whittier Place, the home of Harry Smith, W9TT. Harry is a genuine old timer and can bring a moist look to the eyes of many others when he brings out his scrapbook of photos of old time radio gear.

He was first licensed in 1919 as an amateur and has been a commercial operator for about the same length of time. When his current commercial ticket (second class radiotelephone and radiotelegraph) expires, he will have been continuously licensed for 49 years. He lived in Detroit in the early days of radio, where he was 8TS. He got the call 9APK while at Northwestern University studying engineering. It was there that he received Official Relay Station certificate No. 21, a handsome piece of wallpaper much larger than the ones issued now, and signed by R. H. G. Matthews, 9ZN, who was then division manager. Harry also has the first Extra Class amateur license issued in Indiana.

By day, he works as an electrical engineer at Naval Avionics and by night works in a basement filled from floor to ceiling

with military surplus gear as he builds and rebuilds all kinds of amateur transmitters, receivers and accessories.

Harry is a confirmed CW man who can copy code in his head as easily as the rest of us skim the comic pages. He spends much of his operating time handling traffic and thinks nothing of clearing a couple hundred messages in an evening. At last count, he had more than 80 BPLs and was the third-ranking station in the nation in traffic totals.

* * * * *

TWENTY YEARS AGO By Bob Caskey W9DNQ

It was noted in the Ama-Chewer of 20 years ago that Charlie Campbell, W9UEM, was apt to be drafted to teach one of the Defense Training Schools. W9FOS, W9YMW and W9JJC met at the old club quarters at Insleys' to finish taking down the 160 meter full wave antenna. Insley had taken down one of the supporting crane towers and left the antenna draped on the roof. The fellows got it down, but YMW wasn't much help on the high work. He got stranded on the comb of the roof and had to wait until dark to come down.

Nelson B. Trusler, W9FOS, club vice-president, headed for duty at Fort Monmouth, N. J., as a 2nd Lieutenant in the Signal Corps. The Ama-Chewer reported: "The Army's gain is our loss, for we will miss the tireless energy with which Nelson worked for the club. Whenever there was a job that needed to be well done, Nelson always was willing to do his best. He has the spirit of good comradeship that we know so well at club that will stand him to good stead in his new duties. Our best wishes for your continued success, Nelson."

Donovan M. Davis, W9JYP, was appointed to take over the duties of Radio Aide and Emergency Coordinator for Indianapolis and Marion County, replacing Nelson. Another code and theory school was to start under the direction of Lurcott, W3DSD; Clair Gould, W9AQO, and Charlie Campbell. Tiny Anderson, W9GVW, was reported flying for the CAP. The IRC offered its RME 69 receiver to the Signal Corps. The plea of the editors and printers was "PLEASE PLEASE PLEASE if you have anything of interest to the club's membership, send it in to ye editor, Paul Nelson, the president, YMW, or printer, UEM. Let's keep this scandal sheet going!!!"

Replies have been received from numerous additional stations over the state indicating an interest in the IRC project of providing communications for the Ninety Nines. It appears we should be able to cover most parts of the state very well on six meters, but may use some other bands to reach certain locations where six meter operators have not been found.

Local members of the Ninety Nines have been making flights over the state to attend meetings with other members and plan their program. Just now we're waiting until the women pilots determine which airports they will use for their fund raising "airlift" in April.

After these locations are selected, we'll have another test net exercise, again on a Sunday afternoon. Traffic will be sent to key locations and timed to see if the messages move fast enough to be effective.

* * * * *

SPLATTER

The assistance of amateur radio operators in a great humanitarian effort is described in an article in the February Reader's Digest.

The article, titled "They Can See Again," tells how many persons' eyesight has been saved or restored by corneal transplants, and tells of the service rendered by the ham radio Eyebank Net in handling messages for eye banks attempting to locate eyes for immediate transplanting. Pat Husk, K9EUQ, is a charter member of this national net.

* * * * *

FOR SALE -- Heathkit Cheyenne-Comanche mobile combination, with mobile power supply, mounting brackets, cables, mike: \$120. 110 v AC power supply \$20. K9KTL LI 7-8148

* * * * *

Send in your news items, gossip and ideas. The Ama-Chewer is YOUR paper.

The informality of amateur radio sometimes leads us to let our operating procedures become somewhat "casual," but all amateurs are reminded that old Uncle Frank Charlie Charlie is still out there listening to us and enforcing the rules. Just to give you an idea what sort of things hams have been doing that they shouldn't, here are the violations for which the FCC issued citations to amateurs during the second half of 1963:

Nr. Citations	Rule Violated
149	12.111 Frequencies and types of emission for use by amateurs
34	12.82 Transmission of call signs
34	12.133 Purity and stability of emissions (5 additional made in course of station inspections)
16	12.113 Sidebands out of assigned subband
13	12.23 Classes and privileges of amateur operator licenses
7	12.232 Classification of emissions
3	12.103 Broadcasting prohibited
2	12.28 Who may operate an amateur station
2	12.114 Types of emission
1	12.90 Requirements for portable and mobile operation
1	12.102 No remuneration for use of station
1	12.132 Power supply to transmitter
1	12.160 Interference
1	12.104 Radiotelephone tests

Maybe YOU weren't cited, but have YOU been guilty of any of the above? When you violate an FCC rule, you hurt not only yourself, but all other hams as well. Let's everyone help protect our operating privileges by maintaining a high standard of operating.

* * * * *

XYL CLUB

The March 20 meeting will be in the home of Norvella Griffith, 2002 Cunningham Road, CH 4-4409, at 8 p.m. The program will be the showing of travel slides.

ARRL BULLETINS

Official Bulletin Number 931 Jan. 9

A new agreement concluded between Colombia and the United States effective Dec. 29 permits amateurs of the two countries to exchange communications on behalf of third parties. The limitation to personal or technical messages not important enough to justify the use of commercial circuits is similar to earlier third party agreements. The current list of countries with which U. S. amateurs may make such exchanges is Bolivia, Canada, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Haiti, Honduras, Liberia, Mexico, Nicaragua, Panama, Paraguay, Peru and Venezuela.

Official Bulletin Number 932 Jan. 16

FCC has issued a notice of proposed rulemaking, requested by ARRL, to ease the dual identification requirement by amateurs using other than phone or C.W. Under the proposal, amateurs on RTTY for instance would transmit their full identification by that mode, and in addition would transmit only their own call by telegraphy or telephony, in lieu of repeating the full identification now required. ARRL also requested that the Commission consider permitting this identification to be superimposed on the RTTY carrier without interrupting the teletype transmission. FCC invites comments on the proposed amendment to Section 97.87, old Section 12.82, and the submission of suggestions on methods of superimposing identifications. Comment deadline is March 16, 1964. Full information will appear in March QST.

Official Bulletin Number 933 Jan. 23

The annual ARRL cross indexed net directory is now ready for distribution and copies are being mailed to those who have requests on file. Other copies will be mailed only upon specific request. There is no automatic mailing list. If you want a copy of the new ARRL net directory, mail or radio a request to the ARRL Communications Department, 225 Main St., Newington, Conn. 06111

Official Bulletin Number 934 Jan. 30

In connection with reflective satellite Echo Two, amateurs are asked to record all received signals believed to be reflected from Echo Two and to notify ARRL immediately regarding the nature and extent of observed irregularities as evidenced by variations in signal strength or tone. Please describe in as much detail as possible, identifying the calls

received and indicating the time and date of reception closely. State whether circular polarization was used at either end and describe the tracking methods used with each station's antenna. Do not send recordings unless requested.

Official Bulletin Number 935 Feb. 6

A new temporary third party traffic agreement has been announced whereby amateurs in the United States may handle unimportant personal messages on behalf of third parties with amateur station 4U1ITU in Geneva, Switzerland, during the period January 27 through July 31, 1964. This bulletin supersedes Official Bulletin Number 904 dated July 3, 1963 concerning 4U1ITU.

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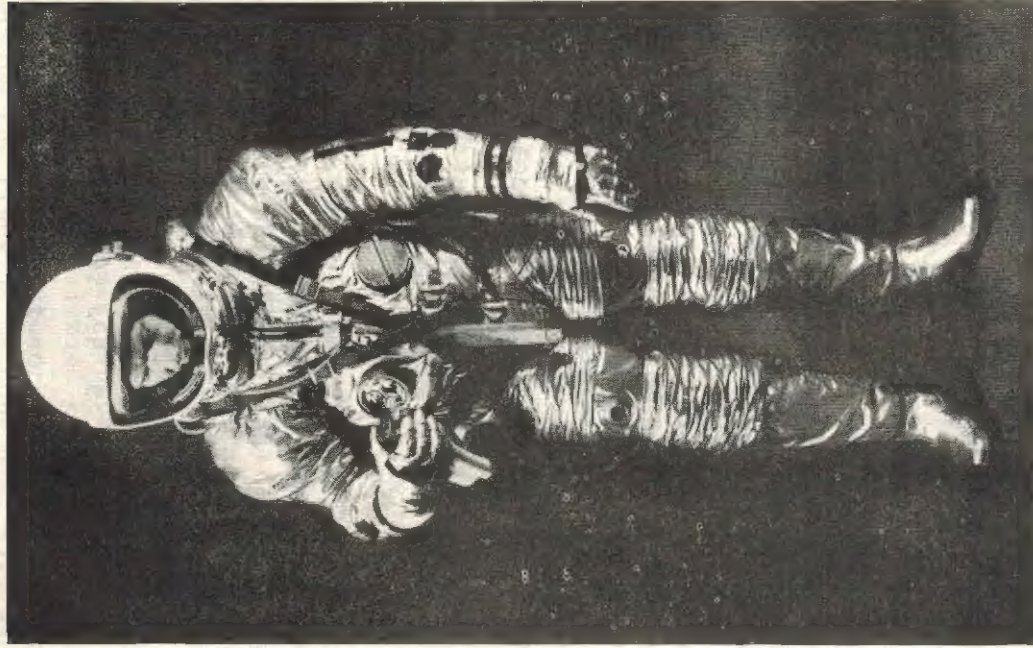
EYEBALL QSO CONTEST

For a guy who just got on the air recently after observing quiet hours for about 30 years, Bob Gaskey, W9DNQ, sure got around town during the Eyeball QSO Contest period. He submitted the winning bundle of 27 cards, including some interesting ones from the Blind School. Dick Kinnett, K9VIE, won second place (sorry, no prize for this) with 19 cards, also including some Braille cards from the Blind School. There were a couple other entries, both from old timers (excuse me, pioneers) who shall remain nameless because they didn't have many cards. (Mebbe their reumetiz was acting up in that cold weather.)

* * * * *

GRAHAMS SPECIALS OF THE MONTH

Hallicrafter SX-88 Receiver	275.00
Hallicrafter HT-37 SSB Xmtr.	375.00
Hallicrafter HT-32 B	525.00
Hallicrafter SR-150 SSB Tranciever	569.00
Johnson Ranger I	165.00
Johnson Valiants	265.00
Johnson Thunderbolt Linear Amp.	395.00
Collins 75A2.	295.00
Collins 75S1.	430.00
Collins 75S2.	425.00
Hammarlund HX 50 SSB Xmtr.	369.00
Hammarlund HQ-170 Receiver	275.00
Hammarlund HQ-150	155.00



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